## Involvement of FGFR4 Gene Variants on the Clinicopathological Severity in Urothelial Cell Carcinoma

Ming-Dow Tsay<sup>1,2,‡</sup>, Ming-Ju Hsieh<sup>1,3,4,‡</sup>, Chia-Yi Lee<sup>5,6</sup>, Shian-Shiang Wang<sup>1,7,8,9</sup>, Chuan-Shu Chen<sup>1,8</sup>, Sheng-Chun Hung<sup>1,7,8</sup>, Chia-Yen Lin<sup>1,8</sup>, Shun-Fa Yang<sup>1,10</sup>,\*

**Table 1.** Genotype distributions of Fibroblast growth factor receptor 4 (FGFR4) gene polymorphisms in 856 Controls and 272 patients had primary bladder UCC.

	Controls (N = 856)	Patients (N = 272)	OR (95% CIs)	AOR (95% CIs)
Variable	n (%)	n (%)	OK (95 /6 CIS)	AOK (95 % CIS)
rs2011077				
TT	221 (25.8%)	71 (26.1%)	1.000 (reference)	1.000 (reference)
TC	418 (48.8%)	139 (51.1%)	1.035 (0.745-1.438)	0.973 (0.621-1.525)
CC	217 (25.4%)	62 (22.8%)	0.889 (0.603-1.312)	0.815 (0.478-1.391)
TC+CC	635 (74.2%)	201 (73.9%)	0.985 (0.722-1.345)	0.919 (0.602-1.403)
rs351855				
GG	242 (28.3%)	74 (27.2%)	1.000 (reference)	1.000 (reference)
GA	426 (49.7%)	139 (51.1%)	1.067 (0.772-1.474)	1.167 (0.751-1.815)
AA	188 (22.0%)	59 (21.7%)	1.026 (0.694-1.518)	0.983 (0.569-1.697)
GA+AA	614 (71.7%)	198 (72.8%)	1.055 (0.777-1.432)	1.111 (0.730-1.691)
rs7708357				
GG	838 (97.9%)	266 (97.8%)	1.000 (reference)	1.000 (reference)
GA	17 (2.0%)	5 (1.8%)	0.927 (0.339-2.535)	1.518 (0.463-4.975)
AA	1 (0.1%)	1 (0.4%)	3.150 (0.196-50.540)	
AG+AA	18 (2.1%)	6 (2.2%)	1.050 (0.413-2.673)	2.013 (0.672-6.029)
rs1966265				
AA	221 (25.8%)	68 (25.0%)	1.000 (reference)	1.000 (reference)
AG	420 (49.1%)	142 (52.2%)	0.937 (0.633-1.387)	0.861 (0.498-1.489)
GG	215 (25.1%)	62 (22.8%)	1.099 (0.789-1.531)	1.124 (0.713-1.772)
AG+GG	635 (74.2%)	204 (75.0%)	1.044 (0.763-1.430)	1.034 (0.671-1.594)

CIs: confidence intervals; OR: odds ratio with their 95% confidence intervals were estimated by logistic regression models. AOR: adjusted odds ratio with their 95% confidence intervals were estimated by multiple logistic regression models after controlling for age, gender, and tobacco consumption.

**Table S2.** Genotype distributions of Fibroblast growth factor receptor 4 (FGFR4) gene polymorphisms in 856 Controls and 156 primary upper tract UC.

Variable	Controls (N = 856)	Patients (N = 156)	OR (95% CIs)	AOR (95% CIs)
rs2011077	n (%)	n (%)		
TT	221 (25.8%)	39 (25.0%)	1.000 (reference)	1.000 (reference)
TC	418 (48.8%)	85 (54.5%)	1.152 (0.763–1.741)	1.113 (0.734–1.689)
CC	217 (25.4%)	32 (20.5%)	0.836 (0.505–1.383)	0.821 (0.494–1.365)
TC+CC	635 (74.2%)	117 (75.0%)	1.044 (0.705–1.547)	1.728 (0.901–3.314)
rs351855				
GG	242 (28.3%)	40 (25.6%)	1.000 (reference)	1.000 (reference)
GA	426 (49.7%)	83 (53.2%)	1.179 (0.783-1.774)	1.259 (0.832-1.906)
AA	188 (22.0%)	33 (21.2%)	1.062 (0.645-1.749)	1.096 (0.662-1.813)
GA+AA	614 (71.7%)	116 (74.4%)	1.143 (0.775-1.686)	1.660 (0.888-3.106)
rs7708357				
GG	838 (97.9%)	150 (96.2%)	1.000 (reference)	1.000 (reference)

GA	17 (2.0%)	5 (3.2%)	1.643 (0.597-4.521)	1.678 (0.602-4.678)
AA	1 (0.1%)	1 (0.6%)	5.587 (0.348-89.804)	
AG+AA	18 (2.1%)	6 (3.8%)	1.862 (0.727-4.768)	2.055 (0.514-8.226)
rs1966265				
AA	221 (25.8%)	39 (25.0%)	1.000 (reference)	1.000 (reference)
AG	420 (49.1%)	84 (53.8%)	0.870 (0.527-1.434)	0.851 (0.513-1.409)
GG	215 (25.1%)	33 (21.2%)	1.133 (0.750–1.713)	1.098 (0.723-1.666)

CIs: confidence intervals; OR: odds ratio with their 95% confidence intervals were estimated by logistic regression models. AOR: adjusted odds ratio with their 95% confidence intervals were estimated by multiple logistic regression models after controlling for age, gender, and tobacco consumption.